

---

## Plasticity of nominal interpretations in context: An object-oriented approach

LOCHLAN MORRISSEY & ANDREA C. SCHALLEY  
(Griffith University, Brisbane, Australia)

---

It is well-known that in particular the nominal domain abounds in underlying inheritance structures (Briscoe, et al. 1993; Fellbaum, 1998; and others), which form part of a cross-connected network of concepts and hence an ontology (Nickles et al., 2007; Schalley & Zaefferer, 2007). Such concepts may or may not be coded by natural language terms, but if they are, the terms' semantics are generally considered as rather static entities, as representing cognitive structures on which speakers rely for their categorisations. While this may largely hold for the terms' out-of-context semantics, terms may assume different meanings in context when used in discourse. This paper shows how speakers creatively coerce terms into representing concepts needed ad-hoc in discourse, and discusses the status of these coerced concepts in the ontology.

Drawing on example data from a corpus of naturally-occurring online discourse on an Australian television programme's website, we present an analysis of the politically charged terms *asylum seeker*, *boat people* and *refugee* as used in Australian discourse. Building on Morrissey (2012), we argue that the concepts underlying those terms are part of an inheritance structure that has the concept 'person arriving in the country unexpectedly' ('unexpected arrival') as its top node. Our analysis for instance shows that within this inheritance structure one of the main distinctions is the notion of legitimacy. According to the data, 'asylum seekers' are (surprisingly?) considered 'illegitimate unexpected arrivals', as they chose to leave their country without an existential need to do so, while for 'refugees' this existential need is recognised and they are hence 'legitimate'.

We rigorously model the terms' semantics by extending the object-oriented semantic approach introduced in Schalley (2004) which is based on the Unified Modeling Language (UML) from computer science (OMG, 1997–2014). This approach is well-suited to the task at hand, as the modelling framework is based on a multi-layered architecture that can be expressed as a system of recursive frames in the sense of Barsalou (1992). In Schalley's approach, categorisations and hence the out-of-context semantics are represented on the model (type) layer, while contextualised instances of categorisations and hence occurrences of terms in context are represented on the instance (object) layer. Compositional processes are partially interpreted as instantiation processes in this approach, coupled with different operations allowing for shifts in the terms' understanding (for example operations resulting in semantic transfers reminiscent of metonymic shifts). Compare (1) and (2):

- (1) e2-0867:  
[...] Next, sort out the **genuine asylum seekers** from those **who aren't**.
- (2) e1-0174:  
After seeing exactly how **refugees (both legal and non-legal)** are treated in Malaysia, [...]

In (1) and (2), the contextual *asylum seeker* and *refugee* occurrences shift the terms' interpretations from their default ones (displaying a negative / positive legitimacy value, respectively) to assume a position higher up in the inheritance structure, cancelling their legitimacy value through the use of the adjectives *genuine* and *(non-)legal* and thus allowing for an underspecified legitimacy attribute.

Based on actual corpus examples, we outline instantiation processes and shift operations and explicitly model the resulting coerced concepts. We further examine the status of these instances with regard to the ontology. As it turns out, the instances are instances of concepts that are actually part of the terms' inheritance structure. Thus, speakers not only appear to be at least implicitly aware of the ontology and the inheritance structures contained therein, they also appear to be prepared to travel along ontology paths less trodden in their instantiations, even if these are not conceptually salient as they are in other cases (cf. e.g. taxonomies).

Finally, we briefly address the generalisability of the object-oriented approach as a promising perspective on compositional semantics as well as outline other areas where the same processes and modelling could lead to insights on other linguistic phenomena (e.g. polysemy).

- Barsalou L.W. (1992). Frames, Concepts, and Conceptual Fields. In: Lehrer A.J. & Kittay E.F. (eds), *Frames, Fields and Contrasts. New Essays in Semantic and Lexical Organization*, Hillsdale: Lawrence Erlbaum, pp. 21–74.
- Briscoe T., de Paiva V. & Copestake A. (eds). (1993). *Inheritance, Defaults, and the Lexicon*, New York: Cambridge University Press.
- Fellbaum C. (ed). (1998). *WordNet: An Electronic Lexical Database*, Cambridge, MA / London: MIT Press.
- Morrissey L. (2012). The Semantics of Three Terms in Australian English: *Refugee, Asylum Seeker, and Boat People*, Honours Thesis, Griffith University, Australia.
- Nickles M., Pease A., Schalley A.C. & Zaefferer D. (2007). Ontologies Across Disciplines. In: Schalley A.C. & Zaefferer D. (eds), *Ontolinguistics. How Ontological Status Shapes the Linguistic Coding of Concepts*, Berlin: Mouton de Gruyter, pp. 23–67.
- OMG. (1997–2014). *Unified Modeling Language. UML Resource Page*, Object Management Group, <http://www.uml.org>.
- Schalley A.C. (2004). *Cognitive Modeling and Verbal Semantics. A Representational Framework Based on UML*, Berlin: Mouton de Gruyter.
- Schalley A.C. & Zaefferer D. (eds). (2007). *Ontolinguistics. How Ontological Status Shapes the Linguistic Coding of Concepts*, Berlin: Mouton de Gruyter.